What is claimed is:

1. (Currently Amended) A process for recovering a pure soda ash product from ~~impure and relatively depleted~~ sodium carbonate bearing streams too dilute to be efficiently recoverable using a sodium monohydrate process comprising:

   a) combining a plurality of sodium carbonate bearing streams in a proportion to suitably feed a sodium carbonate decahydrate process;

   b) neutralizing and thereby reducing the bicarbonate concentration of said combined streams by a means selected from a treatment ~~with~~ selected from the group consisting of (i) a neutralizing agent, (ii) decarbonizing, (iii) diluting with the addition of a more highly concentrated sodium carbonate bearing stream, and (iv) a combination of neutralizing, decarbonizing, and diluting;

   c) crystallizing sodium salts from said ~~combination of~~ combined streams to form sodium carbonate decahydrate;

   d) ~~sufficiently~~ steam purging and recycling accumulated impurities from steps a through c;

   e) utilizing the decahydrate from step d to concentrate a less concentrated sodium salt blend;

   f) crystallizing ~~sodium carbonate product having~~ a desired level of sodium carbonate from the ~~concentrated product~~ sodium carbonate decahydrate of step c;

   g) wasting purge stream from step d to surface evaporation ponds to avoid the costs and hazards associated with underground disposal methods.

2. (Currently Amended) The process of Claim 1 wherein the purge steam from step d is utilized to effect a processing step selected from ~~to~~ the group consisting of (i) concentrating a less concentrated sodium carbonate stream, (ii) feeding the sodium decahydrate unit, and (iii) both concentrating a less concentrated sodium carbonate stream and feeding a sodium carbonate decahydrate unit.

3. (Currently Amended) A process for producing ~~calcium chloride~~ sodium carbonate by withdrawing calcium carbonate from the neutralization by-product of step b of Claim 1.

4. (Currently Amended) A process according to Claim 1 wherein the ~~lesser~~ sodium carbonate bearing ~~waste~~ streams include mine water, pond water, other sodium carbonate bearing streams such as containment basins used to comply with environmental liquid discharge permits, and other process waste streams with concentrations less than about 18% sodium carbonate.

5. (Currently Amended)A process according to Claim 1 wherein the ~~higher concentrated~~ sodium <u>carbonate</u> bearing ~~waste~~ streams include pond water, enriched warm water introduced to impounded sodium decahydrate deposits with the purpose of enriching said warm water in sodium <u>carbonate</u> concentration by melting and dissolving said deposits, streams enriched in sodium carbonate concentration by mechanically mining said impounded sodium decahydrate deposits, sodium carbonate monohydrate purge streams and other sodium carbonate evaporator/crystallizer purge streams with concentrations greater than about 18% sodium carbonate.

6. (Currently Amended)A process according to claim 1 wherein ~~separate or combined waste~~ <u>said sodium carbonate bearing</u> streams are enriched in sodium carbonate concentration ~~to crystallize the specific sodium carbonate salt species desired~~ <u>by steps</u> that includes:
   a) combining streams of lesser sodium carbonate concentration with streams of higher sodium carbonate concentrations;
   b) enriching streams of lesser sodium carbonate concentration with decahydrate crystals;
   c) evaporating water from ~~streams of lesser or greater~~ <u>the</u> sodium carbonate <u>bearing streams</u> ~~concentration~~ using <u>prior art</u> ~~such~~ methods ~~as the~~ <u>selected from</u> third effect of a triple effect crystallizer train, cooling towers, evaporator cooler, air cooled spray <u>_</u>~~evaporator~~<u>evaporator</u>/crystallizer~~, or other evaporation methods known in the art~~;
   ~~d)~~ and ~~appropriate~~ <u>a</u> combination of the above.

7. (Currently Amended)A process according to Claim 1 wherein ~~separate or combined waste~~ <u>said sodium carbonate bearing</u> streams are enriched in sodium carbonate concentration to crystallize the ~~specific~~ sodium carbonate salt ~~species~~ desired that includes:
   a) combining streams of lesser sodium carbonate concentration with streams of higher sodium carbonate concentrations;
   b) enriching streams of <u>the</u> lesser sodium carbonate concentration with decahydrate crystals;

c) evaporating water from ~~streams of lesser or greater~~ the sodium carbonate bearing streams ~~concentration~~ using a ~~such~~ methods selected from ~~as the~~ third effect of a triple effect crystallizer train, cooling towers, evaporator cooler, air cooled spray evaporator/crystallizer~~, or other evaporation methods known in the art~~; and

d) ~~and appropriate~~

d) a combination of the above and purging a portion of the mother liquid separated from the crystals prior to recycling said liquor.

8. (Currently Amended) A process according to claim 1 wherein ~~separate or combined waste~~ the crystallized sodium carbonate decahydrate is used ~~as described in the instant patent, or used~~ to concentrate sodium carbonate in streams feeding other sodium carbonate salt processes.

9. (Currently Amended) A process according to claim 2 wherein ~~separate or combined waste~~ the sodium carbonate bearing streams are depleted in sodium bicarbonate concentration ~~as appropriate to crystallize the specific sodium carbonate salt species desired that includes dense sodium carbonate and sodium decahydrate~~ are used ~~as described in the instant patent, or used~~ in the production of medium or light density sodium carbonate.

10. (Currently Amended) A process that extends the life cycle of surface evaporation ponds wherein the ~~purge~~ concentration of a stream fed to ponds ~~in step b of Claim 1~~ is ~~received~~ reduced by about one-half ~~the~~ by processing according to claim 1. ~~concentration and flow of the combined purge streams from monohydrate and other known sodium salt evaporation/crystallization processes.~~

11. (Currently Amended) A process that substantially reduces the hazards of accumulated sodium carbonate waste stream disposals comprising treating ~~the stream~~ said waste stream according to the process of Claim 1.